



# Hybrid GEL LPGS series



- 15°C – +50°C**  
TEMPERATURE RANGE
- up to 9 months at 25°C**  
SHELF LIFE
- 1-3 Years\***  
WARRANTY
- 500 cycles\***  
NUMBER OF CYCLES AT 80% DOD

\* depending on the application and the actual model

LEOCH Hybrid GEL batteries, LPGS series, are Hybrid Gel Valve-Regulated Lead-Acid batteries that have been optimized for renewable energy applications. Engineered using hybrid gel technology with proper SiO<sub>2</sub> infusion technology (Gelled electrolyte) and AGM separator, LPGS batteries offer a balanced performance between GEL and AGM technologies for cyclic applications. LPGS batteries come in various capacities in 2V cells or 12V blocks, to cover any requirement.

## GENERAL FEATURES

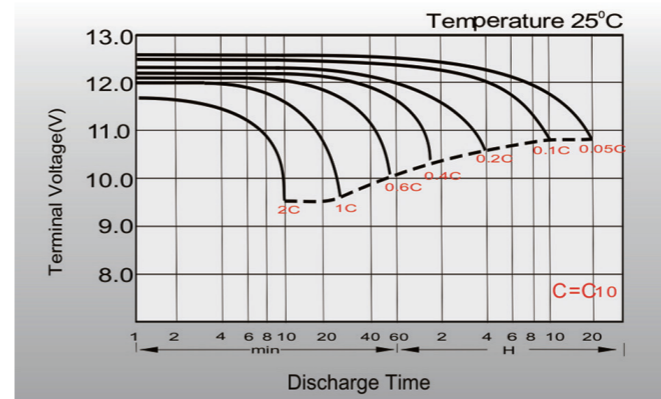
- DEPTH OF DISCHARGE**: Increased cyclic performance offering more than 500 cycles at 80% DoD
- LONG SERVICE LIFE**: Thick plates using a special pasting formula ensures long service life
- PSoC ENDURANCE**: Increased PSoC endurance and performance compared to conventional AGM technology batteries
- SAFETY**: Unique anti-explosion one-way vent valve design to minimize water loss & increase safety
- CHARGE ENDURANCE**: Enhanced over charge and over discharge endurance
- ABS CASE**: ABS case UL94-HB (UL94-V0 optional) is used for increased container strength

## BATTERY SPECIFICATIONS

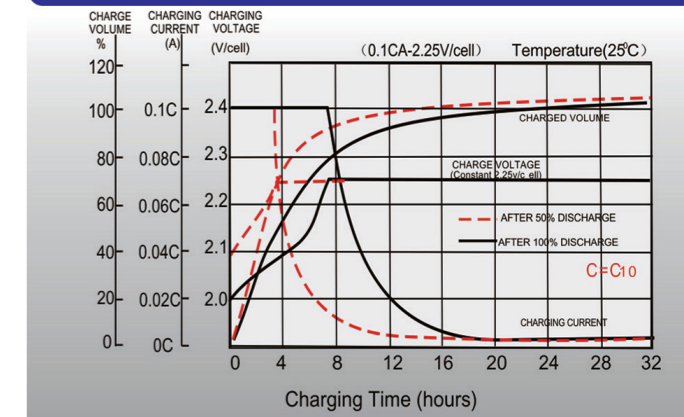
| Model      | Nominal Voltage (V) | Rated Capacity 10Hr @ 1.80V/cell (AH) | Approx. Dimensions |       |        |       |        |       |              |       | Approx. Weight |        | Terminal Type |
|------------|---------------------|---------------------------------------|--------------------|-------|--------|-------|--------|-------|--------------|-------|----------------|--------|---------------|
|            |                     |                                       | Length             |       | Width  |       | Height |       | Total Height |       | kg             | lbs    |               |
|            |                     |                                       | mm                 | in.   | mm     | in.   | mm     | in.   | mm           | in.   |                |        |               |
| LPGS12-28  | 12                  | 25.9                                  | 166.00             | 6.50  | 175.00 | 6.90  | 125.00 | 4.90  | 125.00       | 4.90  | 8.60           | 19.00  | M5            |
| LPGS12-33  | 12                  | 30.6                                  | 195.00             | 7.70  | 130.00 | 5.10  | 164.00 | 6.50  | 167.00       | 6.60  | 10.50          | 23.20  | M6            |
| LPGS12-38  | 12                  | 38                                    | 197.00             | 7.80  | 165.00 | 6.50  | 170.00 | 6.70  | 170.00       | 6.70  | 13.30          | 29.30  | M6            |
| LPGS12-65  | 12                  | 65                                    | 325.00             | 12.80 | 167.00 | 6.60  | 174.00 | 6.90  | 174.00       | 6.90  | 21.40          | 47.20  | M6            |
| LPGS12-75  | 12                  | 75                                    | 260.00             | 10.20 | 168.00 | 6.60  | 208.00 | 8.20  | 214.00       | 8.40  | 22.50          | 49.60  | M6            |
| LPGS12-80  | 12                  | 80                                    | 260.00             | 10.20 | 168.00 | 6.60  | 208.00 | 8.20  | 214.00       | 8.40  | 24.00          | 52.90  | M6            |
| LPGS12-90  | 12                  | 90                                    | 306.00             | 12.00 | 168.00 | 6.60  | 208.00 | 8.20  | 214.00       | 8.40  | 27.00          | 59.50  | M6            |
| LPGS12-100 | 12                  | 100                                   | 330.00             | 13.00 | 173.00 | 6.80  | 212.00 | 8.30  | 218.00       | 8.60  | 30.80          | 67.90  | M8            |
| LPGS12-120 | 12                  | 120                                   | 408.00             | 16.10 | 177.00 | 7.00  | 225.00 | 8.90  | 225.00       | 8.90  | 34.30          | 75.60  | M8            |
| LPGS12-140 | 12                  | 140                                   | 483.00             | 19.00 | 170.00 | 6.70  | 238.50 | 9.40  | 238.50       | 9.40  | 41.80          | 92.20  | M8            |
| LPGS12-150 | 12                  | 150                                   | 483.00             | 19.00 | 170.00 | 6.70  | 238.50 | 9.40  | 238.50       | 9.40  | 43.60          | 96.10  | M8            |
| LPGS12-180 | 12                  | 180                                   | 532.00             | 20.90 | 207.00 | 8.10  | 214.00 | 8.40  | 220.00       | 8.70  | 54.00          | 119.10 | M8            |
| LPGS12-200 | 12                  | 200                                   | 522.00             | 20.60 | 240.00 | 9.40  | 218.00 | 8.60  | 224.00       | 8.80  | 60.30          | 133.00 | M8            |
| LPGS12-250 | 12                  | 250                                   | 522.00             | 20.60 | 268.00 | 10.60 | 220.00 | 8.70  | 226.00       | 8.90  | 73.10          | 161.20 | M8            |
| LPGS2-100  | 2                   | 100                                   | 170.00             | 6.70  | 72.00  | 2.80  | 205.00 | 8.10  | 214.00       | 8.40  | 5.80           | 12.80  | M8            |
| LPGS2-200  | 2                   | 200                                   | 170.00             | 6.70  | 110.00 | 4.30  | 328.00 | 12.90 | 337.00       | 13.30 | 13.80          | 30.40  | M8            |
| LPGS2-300  | 2                   | 300                                   | 170.00             | 6.70  | 150.00 | 5.90  | 330.00 | 13.00 | 339.00       | 13.30 | 18.90          | 41.70  | M8            |
| LPGS2-400  | 2                   | 400                                   | 210.00             | 8.30  | 175.00 | 6.90  | 330.00 | 13.00 | 339.00       | 13.30 | 25.70          | 56.70  | M8            |
| LPGS2-500  | 2                   | 500                                   | 240.00             | 9.40  | 175.00 | 6.90  | 327.50 | 12.90 | 338.00       | 13.30 | 30.20          | 66.60  | M8            |
| LPGS2-600  | 2                   | 600                                   | 300.00             | 11.80 | 175.00 | 6.90  | 330.00 | 13.00 | 340.00       | 13.40 | 36.80          | 81.10  | M8            |
| LPGS2-800  | 2                   | 800                                   | 410.00             | 16.10 | 175.00 | 6.90  | 330.00 | 13.00 | 340.00       | 13.40 | 50.70          | 111.80 | M8            |
| LPGS2-1000 | 2                   | 1000                                  | 475.00             | 18.70 | 175.00 | 6.90  | 328.00 | 12.90 | 338.00       | 13.30 | 60.40          | 133.20 | M8            |
| LPGS2-1500 | 2                   | 1500                                  | 403.00             | 15.90 | 354.00 | 13.90 | 339.00 | 13.30 | 349.00       | 13.70 | 96.60          | 213.00 | M8            |

## PERFORMANCE CHARACTERISTICS

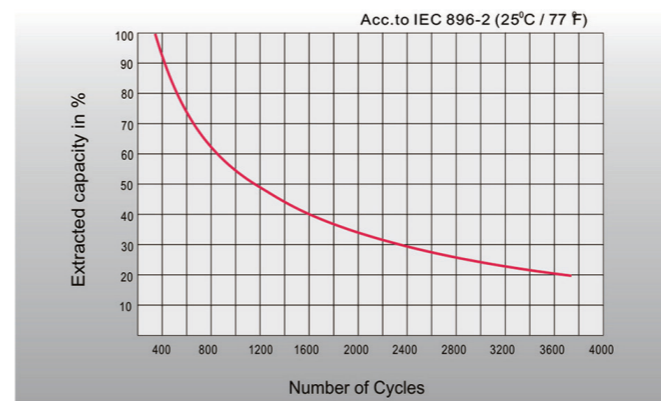
### Discharge Characteristics



### Floating Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### General Relation of Capacity vs Storage Time

